

**IN THE CLAIMS:**

Please add new Claims 64-72, cancel Claims 19-25 and amend Claims 1, 12, 26-30, 40, 50, 51, 61-63 as follows. A copy of amended Claims 1, 12, 26-30, 40, 50, 51, 61-63 8 showing the additions and deletions in accordance with 37 C.F.R. §1.121(c)(1)(ii) is attached hereto.

B1 1. (twice amended) A method for identifying an inhibitor of bitter taste comprising (i) contacting a taste receptor with a G-protein, selected from the group consisting of transducin and gustducin, and a bitter tastant, under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a G-protein selected from the group consisting of transducin and gustducin, the bitter tastant, and a test inhibitor under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and where the test inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate; and then (iii) comparing the level of activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of the test inhibitor has a positive correlation with an ability of the test inhibitor to inhibit the perception of a bitter taste associated with the tastant.

B2 12. (twice amended) A method for identifying an inhibitor of bitter taste comprising (i) contacting, *in vitro*, a taste receptor with a solution comprising a G-protein selected from the group consisting of transducin and gustducin, and a bitter tastant, under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a solution comprising a G-protein selected from the group consisting of transducin and gustducin, the bitter tastant, and a test inhibitor, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and where the test inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate; and then (iii) comparing the level of

activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of the test inhibitor has a positive correlation with an ability of the test inhibitor to inhibit the perception of a bitter taste associated with the tastant.

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26.<sup>19</sup> (twice amended) A method for identifying an inhibitor of bitter taste *in vivo* comprising (i) contacting a taste receptor with a G-protein, selected from the group consisting of transducin and gustducin, and a bitter tastant, under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a G-protein selected from the group consisting of transducin and gustducin, the bitter tastant, and a test inhibitor, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and where the test inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate; and then (iii) comparing the level of activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of the test inhibitor has a positive correlation with an ability of the test inhibitor to inhibit the perception of a bitter taste associated with the tastant.

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27.<sup>20</sup> (amended) The method of claim 26,<sup>19</sup> wherein identifying said inhibitors of bitter taste *in vivo* comprising (i) offering a test animal the choice of consuming either (a) a composition comprising a bitter tastant or (b) the composition comprising the bitter tastant as well as said bitter taste inhibitor; and (ii) comparing the amount of consumption of the composition according to (a) or (b), wherein greater consumption of the composition according to (b) has a positive correlation with an ability of said bitter taste inhibitor to inhibit the perception of bitter taste associated with the tastant.

28.<sup>21</sup> (amended) The method of claim 26,<sup>19</sup> where said bitter taste inhibitor was found to inhibit activation of a G-protein by the bitter tastant.

29.<sup>22</sup> (amended) The method of claim 27,<sup>20</sup> where said bitter taste inhibitor elicits the perception of a sweet taste.

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30.<sup>23</sup> (amended) A method of inhibiting a bitter taste resulting from contacting a taste tissue of a subject with a bitter tastant, comprising administering to the subject an effective amount of a bitterness inhibitor, wherein said bitterness inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate.

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40.<sup>33</sup> (amended) A method of inhibiting a bitter taste of a composition, comprising incorporating, in the composition, an effective amount of a bitterness inhibitor, wherein said bitterness inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate.

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11.<sup>43</sup> 50. (amended) The method of claim 11, further comprising administering to the subject, a composition comprising said bitterness inhibitor that acts as a bitterness inhibitor in addition to eliciting a sweet taste.

144.<sup>43</sup> 51 (amended) The composition of claim 50, comprising a bitter tastant and one or more of said bitterness inhibitors is present at a concentration which inhibits bitter taste perception.

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54.<sup>43</sup> 61. (amended) The composition of claim 50, comprising a bitter tastant and one or more of said bitterness inhibitors, is present at a concentration which inhibits bitter taste perception and which elicits the perception of a sweet taste.

55.<sup>43</sup> 62. (amended) The composition of claim 50, wherein one or more of said bitterness inhibitor, is present at a concentration which elicits the perception of a sweet taste.

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56.<sup>56</sup> 63. (twice amended) A method for identifying a bitter tastant comprising (i) contacting a taste receptor with a G-protein, selected from the group consisting of transducin and gustducin, and a test tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a G-protein selected from the group consisting of transducin and gustducin, the test tastant, and a bitterness inhibitor, wherein said bitterness inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and then

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(iii) comparing the level of activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of said bitterness inhibitor has a positive correlation with an ability of the test taster to elicit the perception of a bitter taste.

<sup>57</sup>  
64. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 5' monophosphate.

<sup>58</sup>  
65. (new) The method of claim 1, wherein the bitterness inhibitor is thymidine 5' monophosphate.

<sup>59</sup>  
66. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 5' diphosphate.

<sup>60</sup>  
67. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 3' monophosphate.

<sup>61</sup>  
68. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 5'-succinate.

<sup>62</sup>  
69. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 5'-triphosphate.

<sup>63</sup>  
70. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 2'-monophosphate.

<sup>64</sup>  
71. (new) The method of claim 1, wherein the bitterness inhibitor is 5'-cytidylic acid.

<sup>65</sup>  
72. (new) The method of claim 1, wherein the bitterness inhibitor is inosinic acid.